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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,300	10/27/2003	Jai K. Baek	212/536	4185

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EXAMINER

FREAY, CHARLES GRANT

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,300	Applicant(s) BAEK, JAI K. 57	
	Examiner Charles G Freay	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/17/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the applicant's response of December 17, 2004. In making the below rejections the examiner has considered and addressed each of the applicant's arguments.

Claim Objections

The amendments made to claim 14 have overcome the previous claim objections.

Claim 3 is objected to because of the following informalities: "deflation" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The meaning of the term "flange" is unclear after consideration of the applicant's arguments. The applicant argues that the meaning of "flange" is well understood to be distinct from a barrel or cylinder, and the examiner does not indicate confusion as to the

Art Unit: 3746

meaning of the terms". The applicant then goes on to give examples of other prior art references which disclose flanges. The meaning of the term flange must be clearly described and the structure and scope of the flange element should be clearly determinable from the present disclosure. At page 5 lines 15 the flange is set forth as "an inwardly protruding flange". A common understanding of the term flange can be found in "The American Heritage Dictionary" which describes a flange as "a protruding rim, edge, or collar, as on a wheel or a pipe shaft, used to strengthen an object, hold it in place, or attach it to another object". After considering this common definition and the applicant's description of the "flange" element in the specification one of ordinary skill would understand a flange as merely a protruding rim or edge. However, the applicant seems to imply that this is not what applicant intends to be a flange. Thus applicant is required to clearly define and distinctly claim the structural definition or description of the term "flange".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-10, 13-24 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by McCombs et al (USPN 6,186,477) as set forth in the previous office action.

Claims 1, 2, 5, 7, 14-16, 19, 21, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Crow (USPN 5,364,070) as set forth in the previous office action. With regards to newly presented claims 28 and 29 Crow clearly discloses in Fig. 2 that the bore (in the area of reference numeral 50) and the lower segment of the plunger (115,120) are dimensioned to allow space between the bore and the lower segment so that fluid flow is un occluded.

Claims 1, and 5-12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Jeory (USPN 6,234,450) as set forth in the previous office action.

Claims 1-10, 14, 15, 17-24 and 27-29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by German reference DE 31 48 111 ('111).

('111) discloses a valve comprising a valve body (22) of conformable material having a bore (70), an upwardly extending flange (radially inner part of the plate 26) having a top surface and a bottom surface acting as a valve seat (56), a plunger having

Art Unit: 3746

an upper segment (68) and a lower segment/disk (50), a housing (20) covering the valve, an extension (the post on the bottom surface of the lower segment), and a spring surrounding the extension and located below the lower segment. Additionally there is a conformable material (54) and the plunger and the bore are dimensioned for unoccluded flow.

Claims 1, 3-10, 14, 18-24 and 28-29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by French reference 2542983 to Lederer et al.

Lederer et al disclose a valve comprising a valve body (130, 132) of conformable material having a bore, an upwardly extending flange (151) having a top surface and a bottom surface acting as a valve seat, a plunger having an upper segment (156) and a lower segment (152) which at its lowest portion takes the form of a disk, a housing (158) covering the valve, an extension (the post on the bottom surface of the lower segment), and a spring (154) surrounding the extension and located below the lower segment. Additionally the plunger and the bore are dimensioned for unoccluded flow. The lower segment seating surface is shaped as an arcuate cone.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11, 12, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lederer et al in view of Jeory.

Art Unit: 3746

As noted above Lederer et al disclose a valve assembly substantially as claimed including a conical valving surface on the plunger lower segment. In Lederer et al the conical surface is arcuate instead of frustoconical. Jeory discloses a similar valve assembly having a frustoconical valving surface. At the time of the invention it would have been obvious to one of ordinary skill in the art to make the valving surface of Lederer et al frustoconical as taught by Jeory in order to obtain a conical seating surface of simple design which is easier to manufacture due to its flat slope.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2 and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,409,486. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons set forth in the previous office action.

Response to Arguments

Applicant's arguments filed December 17, 2005 have been fully considered but they are not persuasive.

The applicant argues against McCombs because 1) McCombs does not disclose a plunger with an upper segment extending through the bore, with the upper segment having a smaller diameter than the lower segment of the plunger, 2) because McCombs does not disclose a flange, and 3) that the upper portion does not have an annular groove of smaller diameter than the rest of the upper portion and holds a sealing ring.

With regards to the first argument, the examiner disagrees with the applicant's position. The applicant's argument is based on the reasoning that since the plunger of McCombs is made of two pieces then only the smaller diameter plunger (50) is actually a plunger. The examiner notes that the claim only sets forth a plunger. No mention is made of a one piece or integral structure. In McCombs the upper (50) and lower (40) segments of the plunger are always in contact with one another either directly through abutment (see Fig. 1b) or indirectly through the spring element (58, see Fig. 1a).

With regards to the second argument, as note in the above 36 USC 112, 2nd paragraph rejection, the meaning of the term "flange" is now unclear. The examiner takes the position that a flange is a protruding rim or edge and the McCombs reference (and each of the Jeory and Crow references) clearly discloses a flange. In making the argument that McCombs does not disclose a flange the applicant notes that McCombs

Art Unit: 3746

reference would not be compatible for use with a boot worn for skiing or snow boarding. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the use of the valve in a snow boot) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regards to the applicant's third argument (which relates to claims 14 and its dependant claims), the examiner disagrees with the applicant's analysis of the correspondence between the claim language and the McCombs et al plunger assembly. The applicant argues that the groove shown in McCombs is part of the lower segment because it cannot pass through the valve seat. The examiner disagrees and takes the position that the upper segment includes the structure to the right of the disk (43) in Figs. 1a and 1b, i.e. the smaller diameter section. And that the lower segment includes the disk (43) the rest of the larger diameter structure to the left of the disk in Figs. 1a and 1b. The applicant argues that groove section of the upper segment is not part of the upper segment because it cannot pass through the valve seat. The claim however only sets forth that the upper segment has a smaller diameter making it capable of moving through the bore. The claim does not set forth that the complete upper segment should be capable of moving through the bore. As shown in Figs. 1a and 1b the upper segment of McCombs et al has a portion (50 and the spring 58) which moves back and forth through the bore. McCombs et al meet the claim limitations.

The applicant argues against Crow because the plunger does not have a lower segment of the plunger having an upper segment positioned in apposition to the bottom surface of the inwardly extending flange. The applicant notes that the tapered portion (100) of Crow is part of the lower portion and is not opposite to the bottom surface of the flange 85. The examiner disagrees with the applicant's position. The examiner notes that the frustoconical surface (100) is part of the upper segment and not the lower segment. The examiner references the last three lines of the rejection under Crow in the previous office action: "The upper portion has an annular groove (110) of smaller diameter than the rest of the upper portion and holds a sealing ring (105). The lower segment has a frustoconical surface which corresponds to the valve seat." The examiner notices now that the two sentences contradict one another with regards to where the upper segment is located. The second sentence was in error since the first clearly noted that the groove was part of the upper smaller diameter portion of the valve and the frustoconical surface (100) is between the groove and the rest of the segment (70, 75). The examiner notes that the groove, frustoconical surface (100) and the remainder of the upper segment (70, 75) are all of smaller diameter than the lower segment/disk (115, 120). The applicant's arguments have resulted in the examiner withdrawing this rejection with regards to claims 11 and 25.

The applicant argues against the Jeory reference because "Jeory lacks enablement". The examiner notes that every patent is presumed valid and that

Art Unit: 3746

presumption includes operability. See 35 USC 282 and MPEP 716.07. The applicant's limited analysis of the Jeory reference does not overcome this presumption. The examiner further notes that the spring biased valve art is a well understood, relatively simple and highly developed field. Jeory is primarily concerned with the mounting features of the valve. It is clear from the Jeory disclosure that flow is permitted through the central valving passage when the plunger is depressed and one of ordinary skill would have been enabled to make such a valve when provided with the Jeory disclosure. The 35 USC 102 rejections with respect to the Jeory reference are maintained.

The examiner recognizes the Terminal Disclaimer filed December 17, 2004. The Disclaimer was signed by Marc J. Frechette, an attorney not of record. Therefore, the Terminal Disclaimer is not approved. Note 37 CFR 1.321 (a), (1).

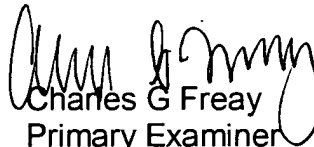
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Charles G Freay
Primary Examiner
Art Unit 3746

CGF
February 4, 2005